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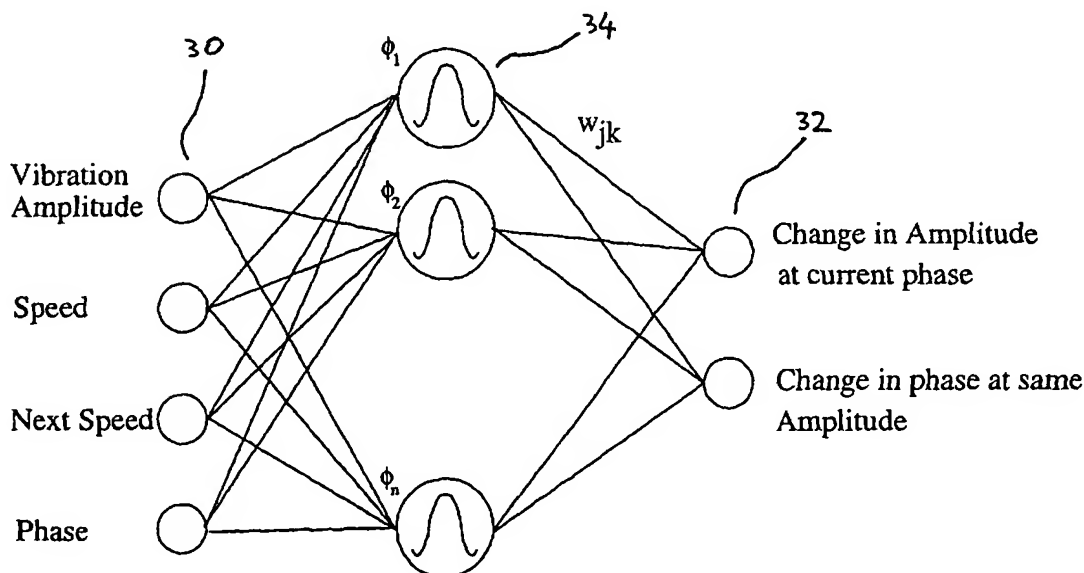
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(54) Title: **MONITORING THE HEALTH OF A POWER PLANT**



(57) Abstract: A method for monitoring the health of a system comprises performing at each of a plurality of times the steps of: constructing a condition signature (30) from a plurality of condition indicators including (a) a plurality of vibration measurements acquired from the system or (b) one or more vibration measurements and one or more performance parameter measurements acquired from the system; predicting a normal signature (32) from a model defining one or more inter-dependencies between said condition indicators, the normal signature corresponding to the condition signature for a healthy system; comparing the condition signature with the normal signature; and registering an event if the condition signature differs from the normal signature by more than a predetermined threshold.



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